A

About Our Authors, *Marie Fidler*, 22, 92, 173, 237, 296, 353.

Alexander Stewart Herschel, The Herschel Dynasty – Part III, *Peter M. Millman*, 279.

Analyse d'une des caractéristiques des étoiles Ap: la depression à 5200Å, *Gilles Joncas*, 261.

Astronomical Alignments at Callanish, Lewis, Comments on the, *Jean-René Roy*, 1.

Astronomy and Basic Science, *G. Herzberg*, 70.

Astronomy at King's College, Windsor, Nova Scotia, *William J. Calnen*, 57.

Astronomy in Canadian Schools, The Teaching of, *John R. Percy*, 81.

Astronomy Section, Herzberg Institute of Astrophysics, National Research Council of Canada, Ottawa (*Notes from Observatories*), 34.

Audible Sounds Excited by Aurorae and Meteor Fireballs, *Colin S. L. Keay*, 253.

B

Bakos, Gustav A., Variations of the Light Curve of the Eclipsing Binary EM Cephei (with Jozef Tremko), 321.

Beta Doradus, The Reddening of, *David G. Turner*, 64.

Bishop, Roy L., Whence Energy?, 163.

Bochonko, Richard (see Canadian Astronomical Society).

Bolton, C. T. (see Review of Publications).

Boudreault, R. (see Education Notes).

Bridle, A. H. (see Notes from Observatories).

Brightest Star That Shines, The, *Peter Jedicke*, 88.

Brooks, Randall C. (see Review of Publications).

Broughton, R. P., Henry Hayden, 1784–1862, 76.

C

Callanish, Lewis, Comments on the Astronomical Alignments at, *Jean-René Roy*, 1.

Callanish, Some Background Information on Dr. Jean-René Roy's Paper on, *Gerald S. Hawkins*, 10.

Calnan, William J., Astronomy at King's College, Windsor, Nova Scotia, 57.

Canada-France-Hawaii Telescope, Opening of the (*Notes*), 101.

Canadian Astronomical Society (Joint Meeting with the R.A.S.C.) at Saint Mary's University, Halifax, Nova Scotia, June 25–28, 1980, Eleventh Meeting of the, *Bochonko*, 354 (*Auclair*, 367; *Bishop*, 364; *Bradford* and *Routledge*, 358; *Brooks*, 367; *Chau, Chiosi, Chan* and *Nelson*, 359; *Chou*, 365; *Clement* and *Wells*, 363; *Cunningham*, 367; *Delaney*, 355; *Dewdney* and *Roger*, 361; *Edwards*, 366; *English* and *Welch*, 361; *Feldman*, 358; *Forbes*, 360; *Gaizauskas* and *Tapping*, 358; *Hickson, Auman, Fahlman, Menon, Walker, Johnson* and *Lester*, 364; *Hogg*, 363; *Hube*, 365; *Innanen* and *Papp*, 362; *Jedicke*, 364; *Kennedy*, 364; *Lake*, 357; *Legg*, 363; *Lemay*, 366; *Levy*, 366; *MacDonnell*, 365; *McCallum* and *Roney*, 367; *McCutcheon, Roger* and *Dickman*, 362; *Mitchell* and *Swift*, 356; *Nelson* and *Chau*, 359; *Papp* and *Innanen*, 362; *Percy* and *Evans*, 360; *Racine*, 364; *Scrimger*, 356; *Seaquist*, 365; *Taylor* and *Gregory*, 358; *Turner* and *Evans*, 359; *Underhill*, 356; *Vallée*, 357; *Varshni*, 357; *Welch*, 361).

EM Cephei, Variations of the Light Curve of the Eclipsing Binary, *Jozef Tremko* and *Gustav A. Bakos*, 321.

ZZ Ceti, Les variables de type, *P. Lacombe* et *G. Fontaine*, 147.

Clarke, Thomas R. (see Review of Publications).

Comment on the Formation of Spiral Galaxies, A, *M. De Robertis* and *R. N. Henriksen*, 189.

A

About Our Authors, *Marie Fidler*, 22, 92, 173, 237, 296, 353.

Alexander Stewart Herschel, The Herschel Dynasty – Part III, *Peter M. Millman*, 279.

Analyse d'une des caractéristiques des étoiles Ap: la depression à 5200Å, *Gilles Joncas*, 261.

Astronomical Alignments at Callanish, Lewis, Comments on the, *Jean-René Roy*, 1.

Astronomy and Basic Science, *G. Herzberg*, 70.

Astronomy at King's College, Windsor, Nova Scotia, *William J. Calnen*, 57.

Astronomy in Canadian Schools, The Teaching of, *John R. Percy*, 81.

Astronomy Section, Herzberg Institute of Astrophysics, National Research Council of Canada, Ottawa (*Notes from Observatories*), 34.

Audible Sounds Excited by Aurorae and Meteor Fireballs, *Colin S. L. Keay*, 253.

B

Bakos, Gustav A., Variations of the Light Curve of the Eclipsing Binary EM Cephei (with Jozef Tremko), 321.

Beta Doradus, The Reddening of, *David G. Turner*, 64.

Bishop, Roy L., Whence Energy?, 163.

Bochonko, Richard (see Canadian Astronomical Society).

Bolton, C. T. (see Review of Publications).

Boudreault, R. (see Education Notes).

Bridle, A. H. (see Notes from Observatories).

Brightest Star That Shines, The, *Peter Jedicke*, 88.

Brooks, Randall C. (see Review of Publications).

Broughton, R. P., Henry Hayden, 1784–1862, 76.

C

Callanish, Lewis, Comments on the Astronomical Alignments at, *Jean-René Roy*, 1.

Callanish, Some Background Information on Dr. Jean-René Roy's Paper on, *Gerald S. Hawkins*, 10.

Calnan, William J., Astronomy at King's College, Windsor, Nova Scotia, 57.

Canada-France-Hawaii Telescope, Opening of the (*Notes*), 101.

Canadian Astronomical Society (Joint Meeting with the R.A.S.C.) at Saint Mary's University, Halifax, Nova Scotia, June 25–28, 1980, Eleventh Meeting of the, *Bochonko*, 354 (*Auclair*, 367; *Bishop*, 364; *Bradford* and *Routledge*, 358; *Brooks*, 367; *Chau, Chiosi, Chan* and *Nelson*, 359; *Chou*, 365; *Clement* and *Wells*, 363; *Cunningham*, 367; *Delaney*, 355; *Dewdney* and *Roger*, 361; *Edwards*, 366; *English* and *Welch*, 361; *Feldman*, 358; *Forbes*, 360; *Gaizauskas* and *Tapping*, 358; *Hickson, Auman, Fahlman, Menon, Walker, Johnson* and *Lester*, 364; *Hogg*, 363; *Hube*, 365; *Innanen* and *Papp*, 362; *Jedicke*, 364; *Kennedy*, 364; *Lake*, 357; *Legg*, 363; *Lemay*, 366; *Levy*, 366; *MacDonnell*, 365; *McCallum* and *Roney*, 367; *McCutcheon, Roger* and *Dickman*, 362; *Mitchell* and *Swift*, 356; *Nelson* and *Chau*, 359; *Papp* and *Innanen*, 362; *Percy* and *Evans*, 360; *Racine*, 364; *Scrimger*, 356; *Seaquist*, 365; *Taylor* and *Gregory*, 358; *Turner* and *Evans*, 359; *Underhill*, 356; *Vallée*, 357; *Varshni*, 357; *Welch*, 361).

EM Cephei, Variations of the Light Curve of the Eclipsing Binary, *Jozef Tremko* and *Gustav A. Bakos*, 321.

ZZ Ceti, Les variables de type, *P. Lacombe* et *G. Fontaine*, 147.

Clarke, Thomas R. (see Review of Publications).

Comment on the Formation of Spiral Galaxies, A, *M. De Robertis* and *R. N. Henriksen*, 189.

Comments on the Astronomical Alignments at Callanish, Lewis, *Jean-René Roy*, 1.
Covington, Arthur E. (see Notes).
Creighton, Harlan (see Royal Astronomical Society of Canada).
SS Cygni in 1978 and 1979, Optical Behaviour of (*Variable Star Notes*), 317.
V 1668 Cygni (Nova Cygni 1978) (*Variable Star Notes*), 185.

D

Demers, Serge (see Education Notes).
De Robertis, M., A Comment on the Formation of Spiral Galaxies (with R. N. Henriksen), 189.
Dominion Astrophysical Observatory (*Notes from Observatories*), 104, 302.
Beta Doradus, The Reddening of, *David G. Turner*, 64.
Dyer, Charles C. (see Review of Publications).

E

Easter Program for the HP 29C, An, *E. L. R. Webb*, 17.
Eclipses, Total Penumbral Lunar, *Jean Meeus*, 291.
Editorial, *L. A. Higgs*, 31, 369.
Education Notes (*Welch and Welch*), 23; (*Boudreault, Fleurant* and *Moffat*), 93; (*Demers*), 180; (*Ménard*), 242; (*Rawlins*), 299.
Energy?, Whence, *Roy L. Bishop*, 163.
Erratum, 370.
Etoiles Ap, analyse d'une des caractéristiques des: la depression à 5200 Å, *Gilles Joncas*, 261.
Evans, Nancy R. (see Review of Publications).
Expérience d'astronomie avancée: spectroscopie moleculaire à moyenne dispersion de Jupiter et Saturne (*Education Notes*), 93.
Exploring the Universe, A Syndicated Weekly Astronomy Column (*Notes*), 240.
Extragalactic Non-Thermal Sources, A Review of, *D. E. Harris*, 109.

F

Fernie, Don (see Notes).
Fidler, Marie (see About Our Authors).
Fleurant, S. (see Education Notes).
Fontaine, G., Les variables de type ZZ Ceti (with P. Lacombe), 147.
Fraknoi, Andrew (see Notes).

G

Gaizauskas, V. (see Notes and also Review of Publications).
Galaxies, A Comment on the Formation of Spiral, *M. De Robertis* and *R. N. Henriksen*, 189.
Gerylo, S. (see Notes).
Griffin, R. F., The Spectroscopic Orbit of HD 7308, 348.

H

Harris, D. E., A Review of Extragalactic Non-Thermal Sources, 109.
Harris, Gretchen L. H. (see Review of Publications).
Harry Hemley Plaskett, 1893–1980, *Peter M. Millman*, 234.
Hawkins, Gerald S., Some Background Information on Dr. Jean René-Roy's Paper on Callanish, 10.
Hayden, Henry, 1784–1862, *R. P. Broughton*, 76.
HD 7308, The Spectroscopic Orbit of, *R. F. Griffin*, 348.
HD 127617 – Bidelman's High-Latitude Be Star, Recent Observations of, *David G. Turner* and *Ronald W. Lyons*, 12.
HD 192276, A Redetermination of the Orbit of, *Douglas P. Hube* and *Andrew Lowe*, 342.
Henriksen, R. N., A Comment on the Formation of Spiral Galaxies (with M. De Robertis), 189 (see also Review of Publications).
Henry Hayden, 1784–1862, *R. P. Broughton*, 76.
Herschel Dynasty, The – Part I: William Herschel, *Peter M. Millman*, 134; Part II: John Herschel, 203; Part III: Alexander Stewart Herschel, 279.

Herzberg, G., Astronomy and Basic Science, 70.
Herzberg Institute of Astrophysics, Astronomy Section (*Notes from Observatories*), 34.
Higgs, L. A. (see Notes, Editorial and Review of Publications).
Hill, Katherine E. (see Notes).
HP 29C, An Easter Program for the, *E. L. R. Webb*, 17.
Hube, Douglas P., A Redetermination of the Orbit of HD 192276 (with Andrew Lowe), 342 (see also Review of Publications).
Hube, Joan O. (see Review of Publications).
Hutchings, J. B. (see Notes from Observatories).

I

IAPPP, A New Forum for Amateur-Professional Co-operation (*Notes*), 297.
In Praise of Smaller Telescopes, *John R. Percy*, 334.
In Search of Satellites of Minor Planets, *Paul D. Maley*, 327.
Israel, Werner (see Review of Publications).

J

Jedicke, Peter, The Brightest Star That Shines, 88.
John Herschel, The Herschel Dynasty – Part II, *Peter M. Millman*, 203.
Joncas, Gilles, Analyse d'une des caractéristiques des étoiles Ap: la depression à 5200Å, 261.

K

Keay, Colin S. L., Audible Sounds Excited by Aurorae and Meteor Fireballs, 253.
King's College, Windsor, Nova Scotia, Astronomy at, *William J. Calnen*, 57.
Kwok, Sun, Star Dust, Mass Loss and the Late Stages of Stellar Evolution, 216.

L

Lacombe, P., Les variables de type ZZ Ceti (with G. Fontaine), 147.
Lake, Kayll (see Review of Publications).
Lowe, Andrew, A Redetermination of the Orbit of HD 192276 (with Douglas P. Hube), 342.
Lunar Eclipses, Total Penumbral, *Jean Meeus*, 291.
Lyons, Ronald W., Recent Observations of HD 127617 – Bidelman's High-Latitude Be Star (with David G. Turner), 12.

M

MacLeod, J. M. (see Notes from Observatories).
MacRae, Donald A. (see Review of Publications).
Madore, Barry F. (see Review of Publications).
Maley, Paul D., In Search of Satellites of Minor Planets, 327.
Mattei, Janet Akyüz (see Variable Star Notes).
McClure, Robert D. (see Review of Publications).
Measuring the Earth with a Hose, On (*Education Notes*), 299.
Meeting of the N.R.C. Associate Committee on Astronomy (*Notes*), 27, 178.
Meeus, Jean, Total Penumbral Lunar Eclipses, 291.
Ménard, Gilles (see Education Notes).
Meteor Fireballs, Audible Sounds Excited by Aurorae and, *Colin S. L. Keay*, 253.
Michaud, G. J. (see Review of Publications).
Millman, Peter M., The Herschel Dynasty – Part I: William Herschel, 134; Part II: John Herschel, 203; Part III: Alexander Stewart Herschel, 279; Harry Hemley Plaskett, 1893–1980, 234.
Moffat, A. F. J. (see Education Notes).
Moore, J. D. (see Notes).

N

Newton, Jack B. (see Review of Publications).
Notes (*Higgs*), 27, 31, 178, 297; (*Hill*), 28; (*Fernie*), 101; (*Gaizauskas, Gerylo and Moore*), 174; (*van den Bergh*), 238; (*Fraknoi*), 240.

Notes from Observatories (*Bridle*), 32; (*MacLeod*), 34; (*Hutchings*), 104, 302.
Nouvelle publication destinée à l'enseignement de l'astronomie, Une (*Education Notes*), 180.
N.R.C. Associate Committee on Astronomy, Meeting of the (*Notes*), 27, 178.

O

Optical Phenomena of the Atmosphere, Transient – A Case Study, *Philip A. Stahl*, 168.
Orbital Motion on an Interactive-Graphics Terminal (*Education Notes*), 23.

P

Papp, K. A. (see Review of Publications).
Percy, John R., The Teaching of Astronomy in Canadian Schools, 81; In Praise of Smaller Telescopes, 334 (see also Review of Publications).
Plaskett, Harry Hemley, 1893–1980, *Peter M. Millman*, 234.
Purton, C. R. (see Review of Publications).

Q

Queen's University at Kingston, Ontario (*Notes from Observatories*), 32.

R

Racine, René (see Review of Publications).
Rawlins, Dennis (see Education Notes).
Recent Observations of HD 127617 – Bidelman's High-Latitude Be Star, *David G. Turner* and *Ronald W. Lyons*, 12.
Reddening of Beta Doradus, The, *David G. Turner*, 64.
Redetermination of the Orbit of HD 192276, A, *Douglas P. Hube* and *Andrew Lowe*, 342.
Review of Extragalactic Non-Thermal Sources, A, *D. E. Harris*, 109.
Review of Publications
Baity, W. A. and L. E. Peterson, editors, X-Ray Astronomy (COSPAR Symposium Series: Advances in Space Exploration, Vol. 3), *K. A. Papp*, 249.
Berman, Louis and J. C. Evans, Exploring the Cosmos (second edition), *C. D. Scarfe*, 40.
Brandt, J. C. and S. P. Maran, New Horizons in Astronomy (second edition), *John B. Rice*, 43.
Bray, R. J. and R. E. Loughheed, Sunspots, *V. Gaizauskas*, 247.
Duffett-Smith, Peter, Practical Astronomy with Your Calculator, *Joan O. Hube* and *Douglas P. Hube*, 373.
Finley's Holiday Films, producer, Our Universe: A Set of 18 Colour Slides, *John R. Percy*, 181.
Fitch, W. S., editor, Multiple Periodic Variable Stars: Contributed Papers (IAU Colloquium No. 29), *Nancy R. Evans*, 46.
Gray, D. F. and J. L. Linsky, editors, Stellar Turbulence (IAU Colloquium No. 51: Lecture Notes in Physics, Vol. 114), *G. J. Michaud*, 375.
Hazelett, Richard and Dean Turner, editors, The Einstein Myth and the Ives Papers, *Werner Israel*, 248.
Hoyt, William Graves, Planets X and Pluto, *Katherine Riordon*, 313.
Jones, Aubrey, Mathematical Astronomy with a Pocket Calculator, *Martine Simard-Normandin*, 45.
Kaufmann, III, William J., The Cosmic Frontiers of General Relativity, *D. W. Sida*, 42; Planets and Moons, *Donald A. MacRae*, 106; Galaxies and Quasars, *Barry F. Madore*, 310.
Kursunoglu, Behram, Arnold Perlmutter and Linda F. Scott, editors, On the Path of Albert Einstein (Studies in the Natural Sciences, Vol. 15), *Kayll Lake*, 372.
Lang, Kenneth R., Astrophysical Formulae, *R. N. Henriksen*, 183.
Li, Y. T. and P. Sandorf, editors, Project Icarus (MIT Students' System Project, Revised Edition), *C. D. Scarfe*, 250.
List of Publications Received for Review (1 Jan. 1980 to 1 June 1980), 316.
Mallas, John H. and Evered Kreimer,

The Messier Album, *Jack B. Newton*, 41.
Mumford, G. S., The Cloudy Night Book, *Gretchen L. H. Harris*, 374.
Payne-Gaposchkin, C., Stars and Clusters, *Robert D. McClure*, 51.
Powers, Robert M., Shuttle: The World's First Spaceship, *Thomas R. Clarke*, 105.
Silk, Joseph, The Big Bang: The Creation and Evolution of the Universe, *Charles C. Dyer*, 315.
Table ronde du Centre National de la Recherche Scientifique (Collection: Histoire des sciences, C.N.R.S.), Roemer et la vitesse de la lumière, *René Racine*, 48.
van Helden, Albert, The Invention of the Telescope (Transactions of the American Philosophical Society, Vol. 67, Part 4), *Randall C. Brooks*, 371.
Verschuur, Gerrit L., Starscapes: Topics in Astronomy, *C. R. Purton*, 107.
Westerlund, B. E., editor, Stars and Star Systems (Astrophysics and Space Science Library, Vol. 75), *Jacques P. Vallée*, 181.
Wood, John A., The Solar System, *C. T. Bolton*, 49.
Rice, John B. (see Review of Publications).
Riordon, Katherine (see Review of Publications).
Rohr, René R.-J., A Unique Greek Sundial Recently Discovered in Central Asia, 271.
Roy, Jean-René, Comments on the Astronomical Alignments at Callanish, Lewis, 1.
Royal Astronomical Society of Canada, The, National Officers and Council for 1980, 304; Minutes of the Annual Meeting (*Creighton*), 305; Chant Medal Award (*Levy*), 308; New Service Award (*Mott*), 309 (see also Canadian Astronomical Society).

S

WZ Sagittae, The 1978 Outburst of the Cataclysmic Variable (*Variable Star Notes*), 53.
Satellites of Minor Planets, In Search of, *Paul D. Maley*, 327.
Scarfe, C. D. (see Review of Publications).
Science, Astronomy and Basic, *G. Herzberg*, 70.
Sida, D. W. (see Review of Publications).
Simard-Normandin, Martine (see Review of Publications).
Simon Newcomb Award, The (*Notes*), 31.
1979 Simon Newcomb Award Entries (*Calnan*), 57; (*Broughton*), 76; (*Jedicke*), 88.
Solar Calendar, A. (*Education Notes*), 242.
Some Background Information on Dr. Jean-René Roy's Paper on Callanish, *Gerald S. Hawkins*, 10.
Spectroscopic Orbit of HD 7308, The, *R. F. Griffin*, 348.
Spiral Galaxies, A Comment on the Formation of, *M. De Robertis* and *R. N. Henriksen*, 189.
Stahl, Philip A., Transient Optical Phenomena of the Atmosphere – A Case Study, 168.
Star Dust, Mass Loss and the Late Stages of Stellar Evolution, *Sun Kwok*, 216.
Star That Shines, The Brightest, *Peter Jedicke*, 88.
Stellar Evolution, Star Dust, Mass Loss and the Late Stages of, *Sun Kwok*, 216.
Sundial Made from a Microwave Antenna Honours Canada's Pioneer Radio Astronomer (*Notes*), 174.
Sundial Recently Discovered in Central Asia, A Unique Greek, *René R.-J. Rohr*, 271.

T

Teaching of Astronomy in Canadian Schools, The, *John R. Percy*, 81.
Telescopes, In Praise of Smaller, *John R. Percy*, 334.
Total Penumbral Lunar Eclipses, *Jean Meeus*, 291.
Total Solar Eclipse of February 16, 1980, The (*Notes*), 238.
Transient Optical Phenomena of the Atmosphere – A Case Study, *Philip A. Stahl*, 168.
Tremko, Jozef, Variations of the Light

Curve of the Eclipsing Binary EM Cephei (with Gustav A. Bakos), 321.
Turner, David G., Recent Observations of HD 127617 – Bidelman's High Latitude Be Star (with Ronald W. Lyons), 12; The Reddening of Beta Doradus, 64.

U

Unique Greek Sundial Recently Discovered in Central Asia, A, *René R.-J. Rohr*, 271.

V

Vallée, Jacques P. (see Review of Publications).
van den Bergh, Sidney (see Notes).
Variable Star Notes, *Janet Akyüz Mattei*, 53, 185, 317.
Variables de type ZZ Ceti, Les, *P. Lacombe* et *G. Fontaine*, 147.
Variations of the Light Curve of the Eclipsing Binary EM Cephei, *Jozef Tremko* and *Gustav A. Bakos*, 321.
View of Science in the Magazine *OMNI*, The (*Notes*), 28.

W

Webb, E. L. R., An Easter Program for the HP 29C, 17.
Welch, Dorothy M. K. (see Education Notes).
Welch, Gary A. (see Education Notes).
Whence Energy?, *Roy L. Bishop*, 163.
William Herschel, The Herschel Dynasty – Part I, *Peter M. Millman*, 134.

the JOURNAL of the ROYAL ASTRONOMICAL SOCIETY of CANADA

devoted to the advancement of astronomy and allied sciences

Editor – Lloyd A. Higgs
Assistant to the Editor – Marie Fidler

Volume 74, 1980

Printed by the University of Toronto Press

ISSN 0035 872X

CONTENTS FOR VOLUME 74, 1980

I. FEBRUARY

Comments on the Astronomical Alignments at Callanish, Lewis — *Jean-René Roy* — 1

Some Background Information on Dr. Jean-Rene Roy's Paper on Callanish — *Gerald S. Hawkins* — 10

Recent Observations of HD 127617 – Bidelman's High-Latitude Be Star — *David G. Turner* and *Ronald W. Lyons* — 12

An Easter Program for the HP 29C — *E. L. R. Webb* — 17

About Our Authors — *Marie Fidler* — 22

Education Notes (Orbital Motion on an Interactive-Graphics Terminal) — *Dorothy M. K. Welch* and *Gary A. Welch* — 23

Notes (Meeting of the N.R.C. Associate Committee on Astronomy: *L. A. Higgs*; The View of Science in the Magazine OMNI: *Katherine E. Hill*; The Simon Newcomb Award: *L. A. Higgs*; Editorial: *L. A. Higgs*) — 27

Notes from Observatories (Queen's University at Kingston, Ontario: *A. H. Bridle*; Astronomy Section, Herzberg Institute of Astrophysics, National Research Council of Canada, Ottawa: *J. M. MacLeod*) — 32

Review of Publications (*Exploring the Cosmos* (Second Edition) by Louis Berman and J. C. Evans; *The Messier Album* by John H. Mallas and Evered Kreimer; *The Cosmic Frontiers of General Relativity* by William J. Kaufman, III; *New Horizons in Astronomy* (Second Edition) by J. C. Brandt and S. P. Maran; *Mathematical Astronomy with a Pocket Calculator* par Aubrey Jones; *Multiple Periodic Variable Stars: Contributed Papers* (IAU Colloquium No. 29) edited by W. S. Fitch; *Roemer et la vitesse de la lumière*, Table ronde du Centre National de la Recherche Scientifique (Collection: Histoire des sciences, C.N.R.S.); *The Solar System* by John A. Wood; *Stars and Clusters* by C. Payne-Gaposchkin) — 40

Variable Star Notes (The 1978 Outburst of the Cataclysmic Variable WZ Sagittae) — *Janet Akyüz Mattei* — 53

II. APRIL

Astronomy at King's College, Windsor, Nova Scotia — *William J. Calnen* — 57

The Reddening of Beta Doradus — *David G. Turner* — 64

Astronomy and Basic Science — *G. Herzberg* — 70

Henry Hayden, 1784–1862 — *R. P. Broughton* — 76

The Teaching of Astronomy in Canadian Schools — *John R. Percy* — 81

The Brightest Star That Shines — *Peter Jedicke* — 88

About Our Authors — *Marie Fidler* — 92

Education Notes (Expérience d'astronomie avancée: spectroscopie moleculaire à moyenne dispersion de Jupiter et Saturne) — *R. Boudreault, S. Fleurant* et *A. F. J. Moffat* — 93

Notes (Opening of the Canada-France-Hawaii Telescope: *Don Fernie*) — 101

Notes from Observatories (Dominion Astrophysical Observatory: *J. B. Hutchings*) — 104

Review of Publications (*Shuttle: The World's First Spaceship* by Robert M. Powers; *Planets and Moons* by William J. Kaufmann, III; *Starscapes: Topics in Astronomy* by Gerrit L. Verschuur) — 105

III. JUNE

A Review of Extragalactic Non-Thermal Sources — *D. E. Harris* — 109
The Herschel Dynasty – Part I: William Herschel — *Peter M. Millman* — 134
Les variables de type ZZ Ceti — *P. Lacombe* et *G. Fontaine* — 147
Whence Energy? — *Roy L. Bishop* — 163
Transient Optical Phenomena of the Atmosphere – A Case Study — *Philip A. Stahl* — 168
About Our Authors — *Marie Fidler* — 173
Notes (Sundial Made from a Microwave Antenna Honours Canada's Pioneer Radio Astronomer: *V. Gaizauskas, S. Gerylo* and *J. D. Moore*; Meeting of the N.R.C. Associate Committee on Astronomy: *L. A. Higgs*) — 174
Education Notes (Une nouvelle publication destinée à l'enseignement de l'astronomie) — *Serge Demers* — 180
Review of Publications (*Our Universe: A Set of 18 Colour Slides* produced by Finley's Holiday Films; *Stars and Star Systems* (Astrophysics and Space Science Library, Vol. 75) édité par B. E. Westerlund; *Astrophysical Formulae* by Kenneth R. Lang) — 181
Variable Star Notes (V1668 Cygni (Nova Cygni 1978)) — *Janet Akyüz Mattei* — 185

IV. AUGUST

A Comment on the Formation of Spiral Galaxies *M. De Robertis* and *R. N. Henriksen* — 189
The Herschel Dynasty – Part II: John Herschel — *Peter M. Millman* — 203
Star Dust, Mass Loss and the Late Stages of Stellar Evolution — *Sun Kwok* — 216
Harry Hemley Plaskett, 1893–1980 — *Peter M. Millman* — 234
About Our Authors — *Marie Fidler* — 237
Notes (The Total Solar Eclipse of February 16, 1980: *Sidney van den Bergh*; Exploring the Universe, A Syndicated Weekly Astronomy Column: *Andrew Fraknoi*) — 238
Education Notes (A Solar Calendar) — *Gilles Ménard* — 242
Review of Publications (*Sunspots* by R. J. Bray and R. E. Loughhead; *The Einstein Myth and the Ives Papers* edited by Richard Hazelett and Dean Turner; *X-Ray Astronomy* (COSPAR Symposium Series: Advances in Space Exploration, Vol. 3) edited by W. A. Baity and L. E. Peterson; *Project Icarus* (MIT Students' System Project, Revised Edition) edited by Y. T. Li and P. Sandorf) — 247

V. OCTOBER

Audible Sounds Excited by Aurorae and Meteor Fireballs — *Colin S. L. Keay* — 253
Analyse d'une des caractéristiques des étoiles Ap: la depression à 5200 Å — *Gilles Joncas* — 261
A Unique Greek Sundial Recently Discovered in Central Asia — *René R.-J. Rohr* — 271
The Herschel Dynasty – Part III: Alexander Stewart Herschel — *Peter M. Millman* — 279
Total Penumbral Lunar Eclipses — *Jean Meeus* — 291
About Our Authors — *Marie Fidler* — 296
Notes (IAPPP, A New Forum for Amateur-Professional Co-operation: *L. A. Higgs*) — 297
Education Notes (On Measuring the Earth with a Hose) — *Dennis Rawlins* — 299
Notes from Observatories (Dominion Astrophysical Observatory: *J. B. Hutchings*) — 302
Annual Meeting of the R.A.S.C. (List of Officers and Council for 1980; Minutes of the Annual Meeting: *Harlan Creighton*; Chant Medal Award: *David H. Levy*; New Service Award: *Stanley A. Mott*) — 304

Review of Publications (*Galaxies and Quasars* by William J. Kaufmann, III; *Planets X and Pluto* by William Graves Hoyt; *The Big Bang: The Creation and Evolution of the Universe* by Joseph Silk; *List of Publications Received for Review* (1 Jan. 1980 to 1 June 1980)) 310
Variable Star Notes (Optical Behaviour of SS Cygni in 1978 and 1979) *Janet Akyüz Mattei* 317

VI. DECEMBER

Variations of the Light Curve of the Eclipsing Binary EM Cephei *Jozef Tremko* and *Gustav A. Bakos* 321
In Search of Satellites of Minor Planets *Paul D. Maley* 327
In Praise of Smaller Telescopes *John R. Percy* 334
A Redetermination of the Orbit of HD 192276 *Douglas P. Hube* and *Andrew Lowe* 342
The Spectroscopic Orbit of HD 7308 *R. F. Griffin* 348
About Our Authors *Marie Fidler* 353
Eleventh Meeting of the Canadian Astronomical Society (Joint Meeting with The Royal Astronomical Society of Canada) at Saint Mary's University, Halifax, Nova Scotia, June 25–28, 1980 *Richard Bochonko* 354
Editorial *L. A. Higgs* 369
Erratum 370
Review of Publications (*The Invention of the Telescope* (Transactions of the American Philosophical Society, Vol. 67, Part 4) by Albert van Helden: *On the Path of Albert Einstein* (Studies in the Natural Sciences, Vol. 15) edited by Behram Kursunoglu, Arnold Perlmutter and Linda F. Scott; *Practical Astronomy with Your Calculator* by Peter Duffett-Smith; *The Cloudy Night Book* by G. S. Mumford; *Stellar Turbulence* (IAU Colloquium No. 51: Lecture Notes in Physics, Vol. 114) edited by D. F. Gray and J. L. Linsky) 371
Index to Volume 74, 1980 377
Table of Contents for Volume 74 i to iv